

FIG. 1

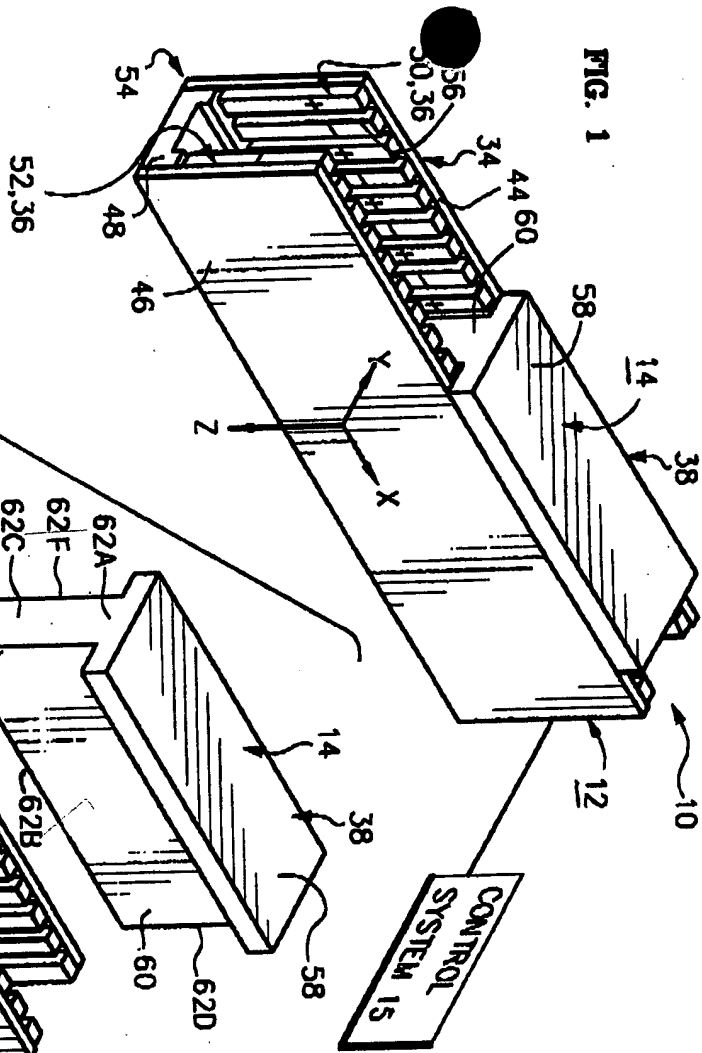


FIG. 2

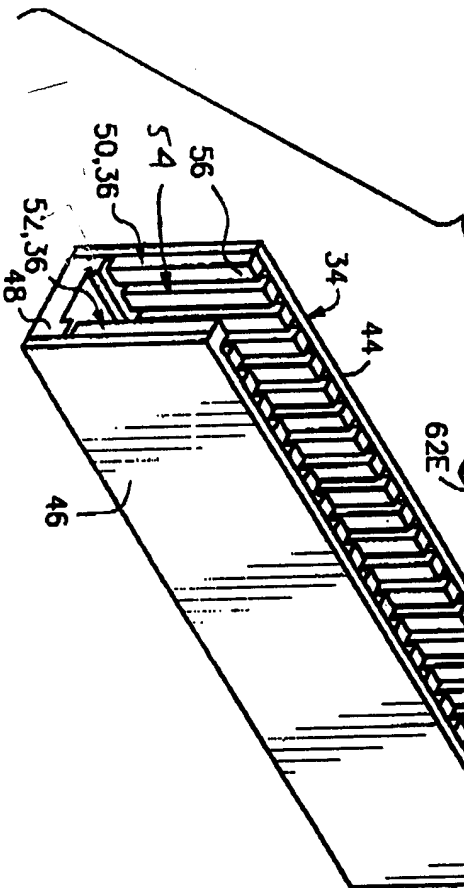


FIG. 3A

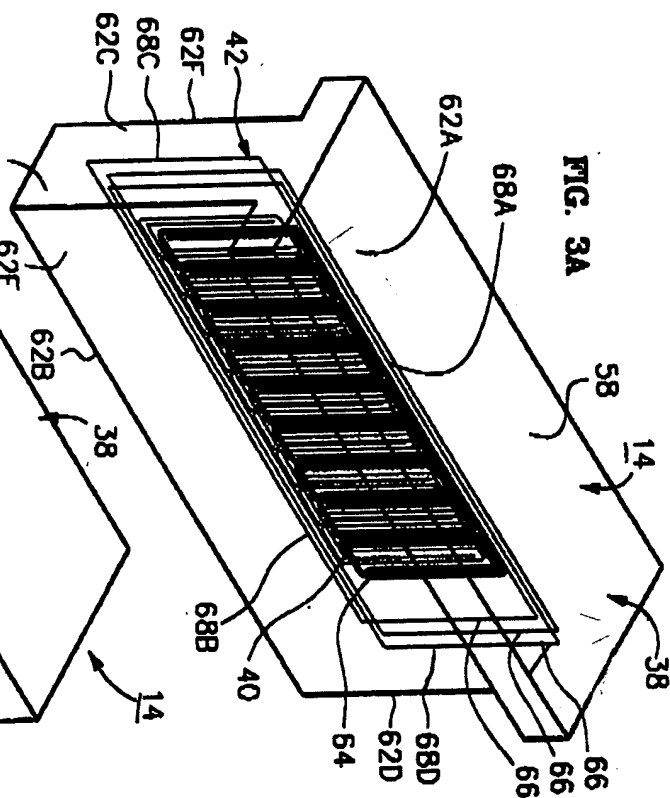
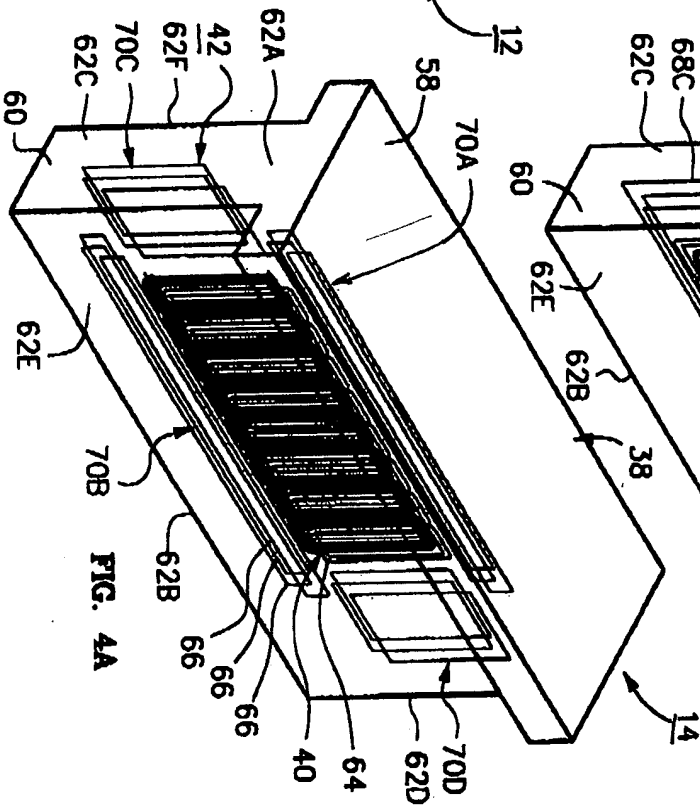


FIG. 4A



09625014.072500

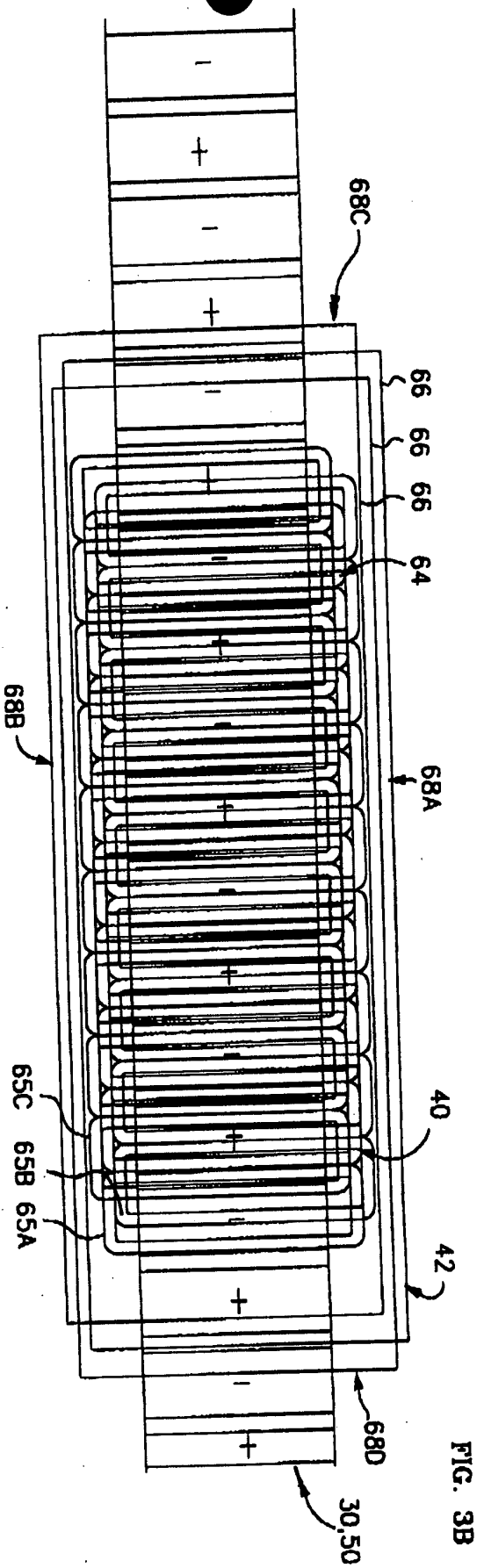


FIG. 3B

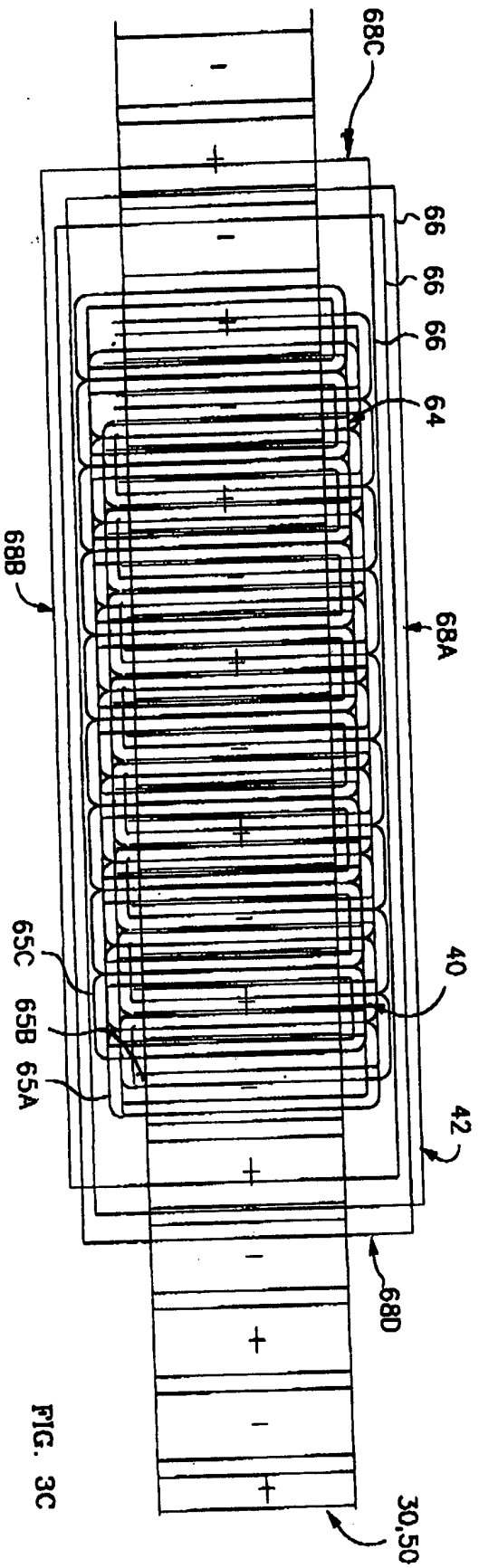


FIG. 3C

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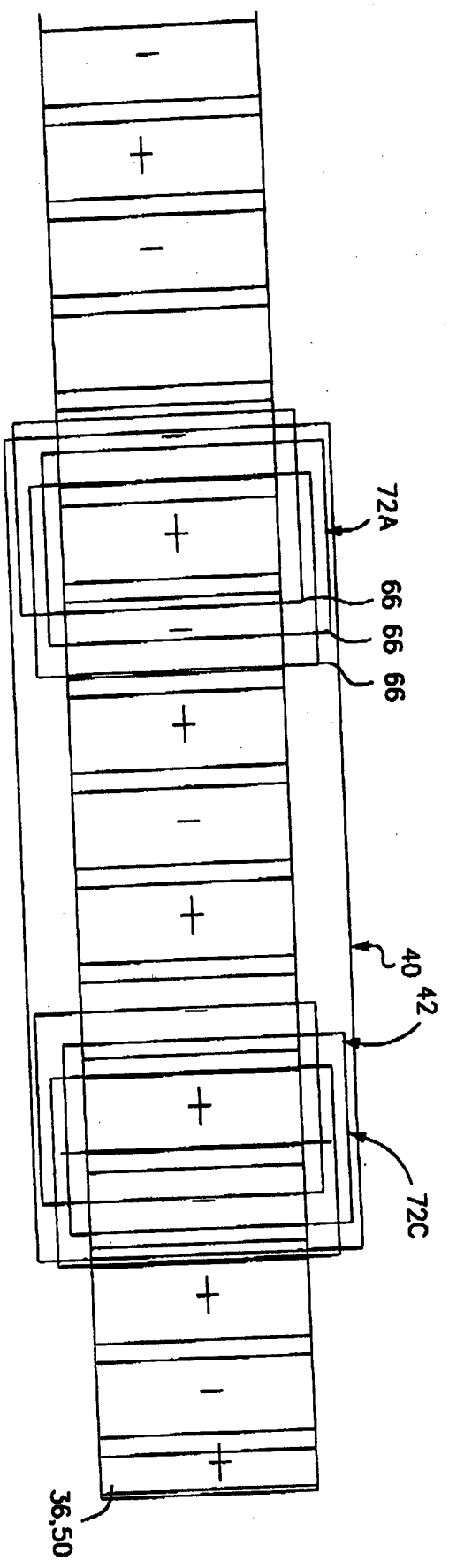


FIG. 5B

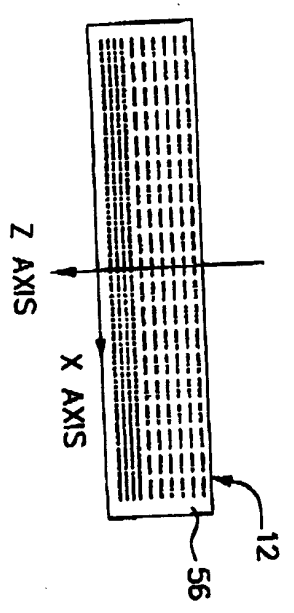


FIG. 6A

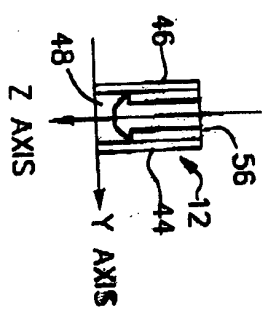
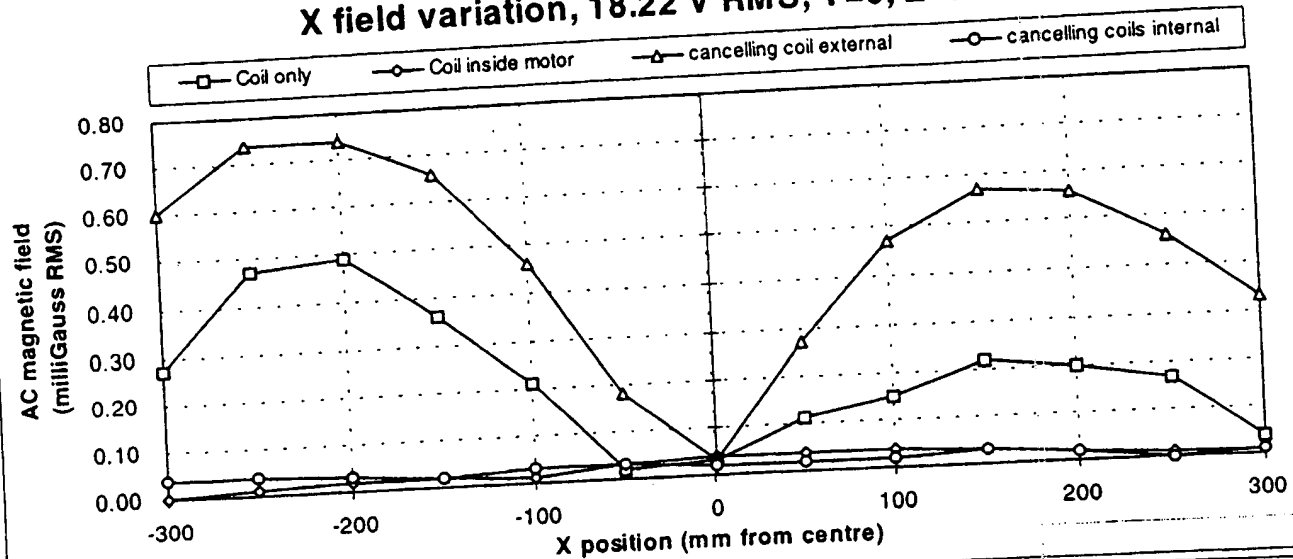


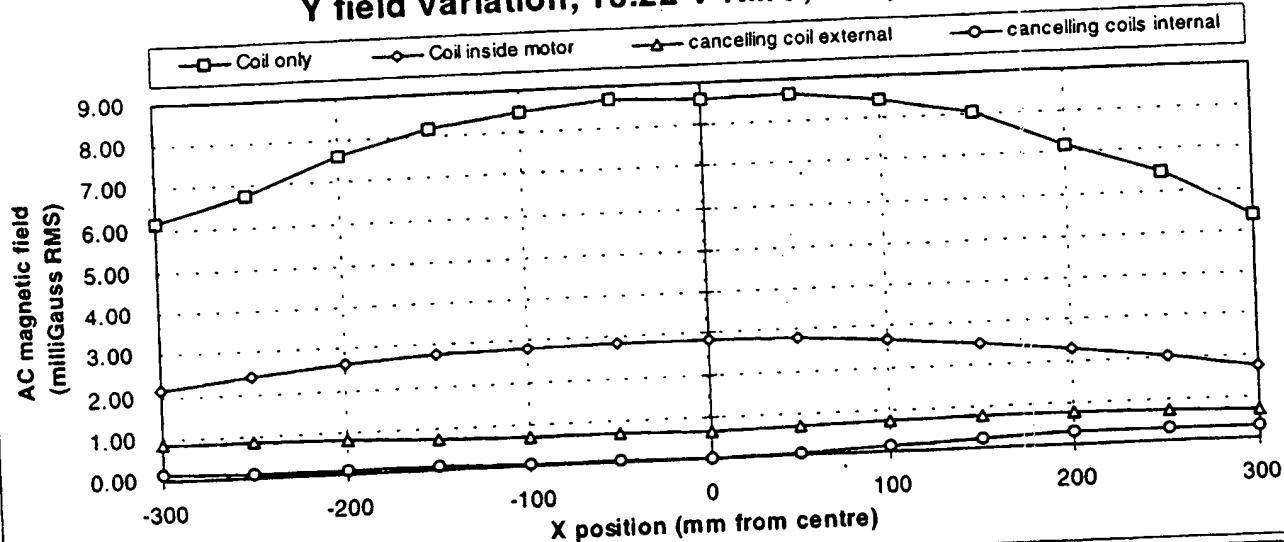
FIG. 6B

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X field variation, 18.22 V RMS, Y=0, Z=300



Y field variation, 18.22 V RMS, Y=0, Z=300



Z field variation, 18.22 V RMS, Y=0, Z=300

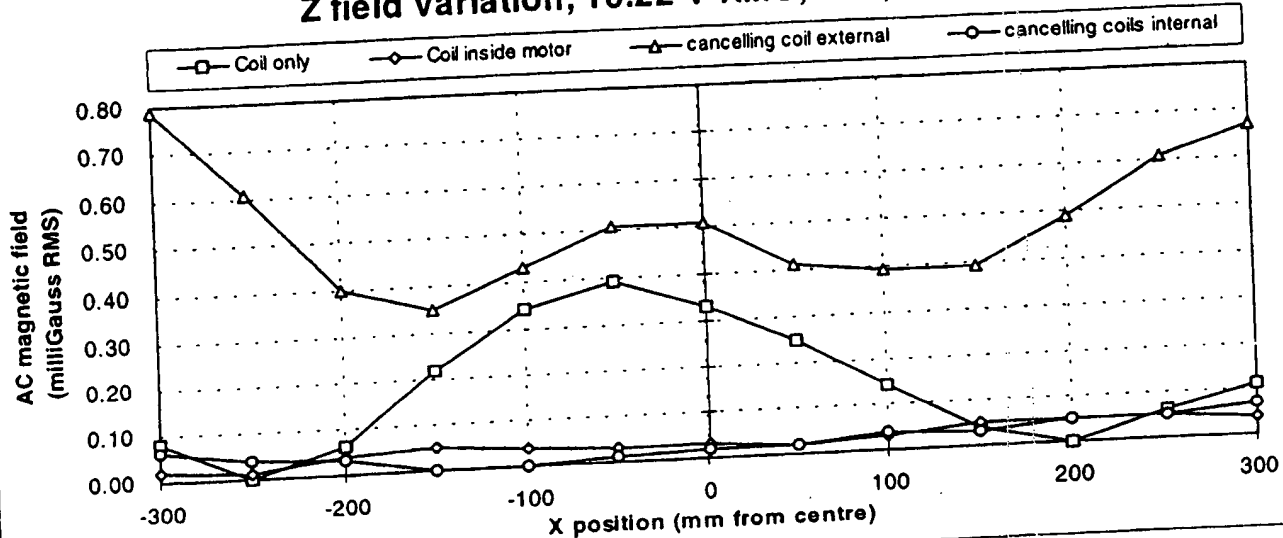
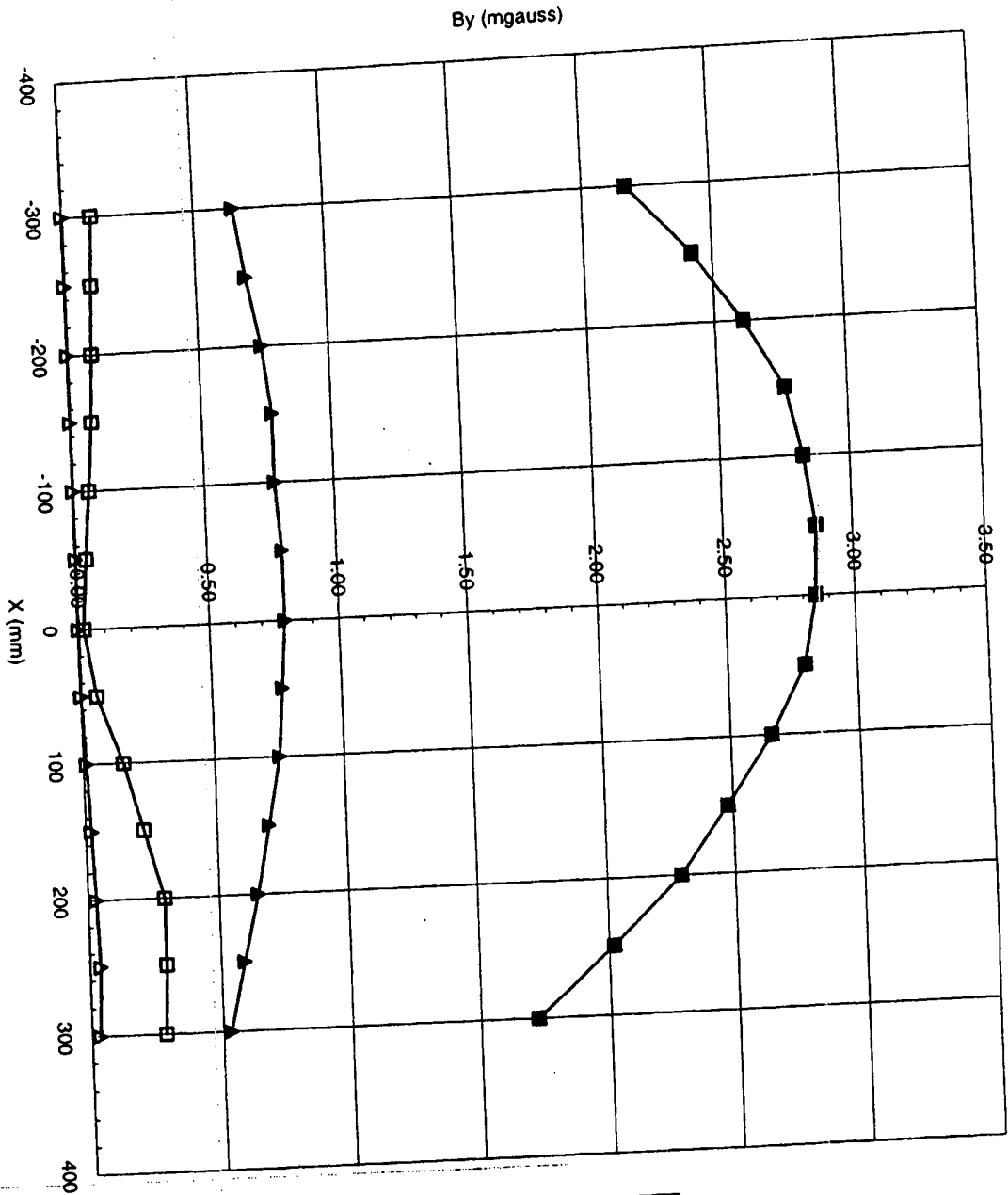


Fig 7



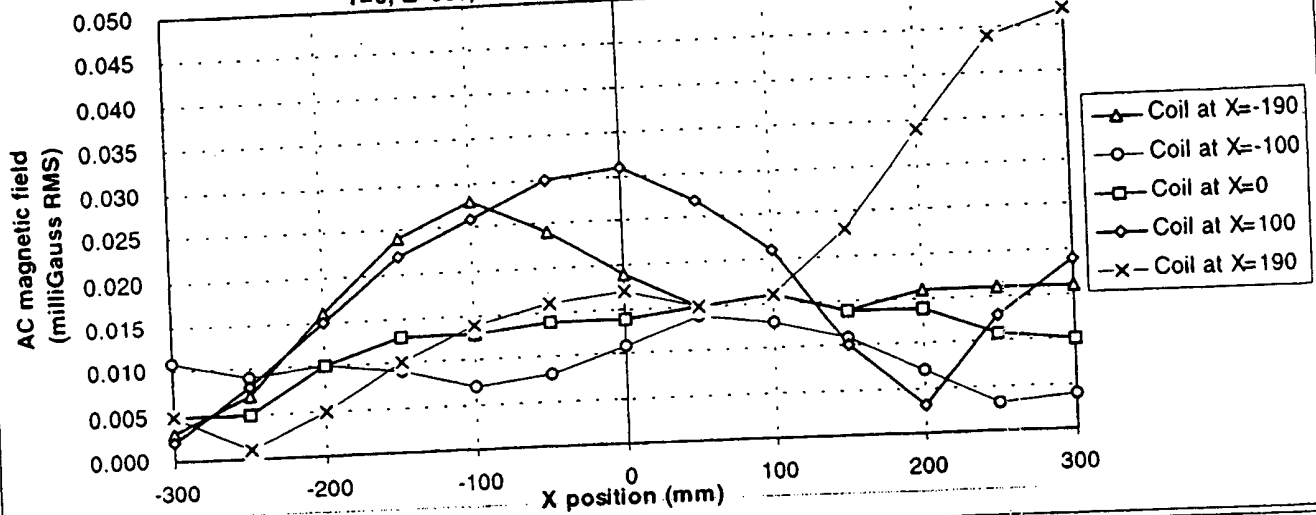
- coil in motor Z = 300 mm
- canceled field in motor Z = 300 mm
- ▲— coil in motor Z = 500 mm
- △— canceled field in motor Z = 500 mm

Fig. 8

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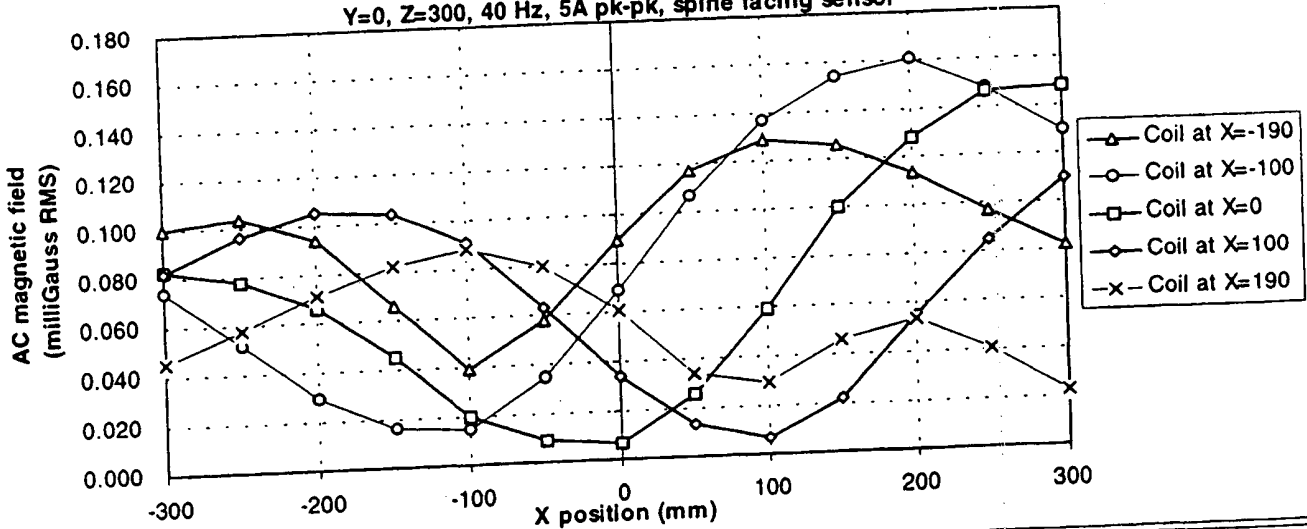
Cancelled X field variation with coil position

Y=0, Z=300, 40 Hz, 5A pk-pk, spine facing sensor



Cancelled Y field variation with coil position

Y=0, Z=300, 40 Hz, 5A pk-pk, spine facing sensor



Cancelled Z field variation with coil position

Y=0, Z=300, 40 Hz, 5A pk-pk, spine facing sensor

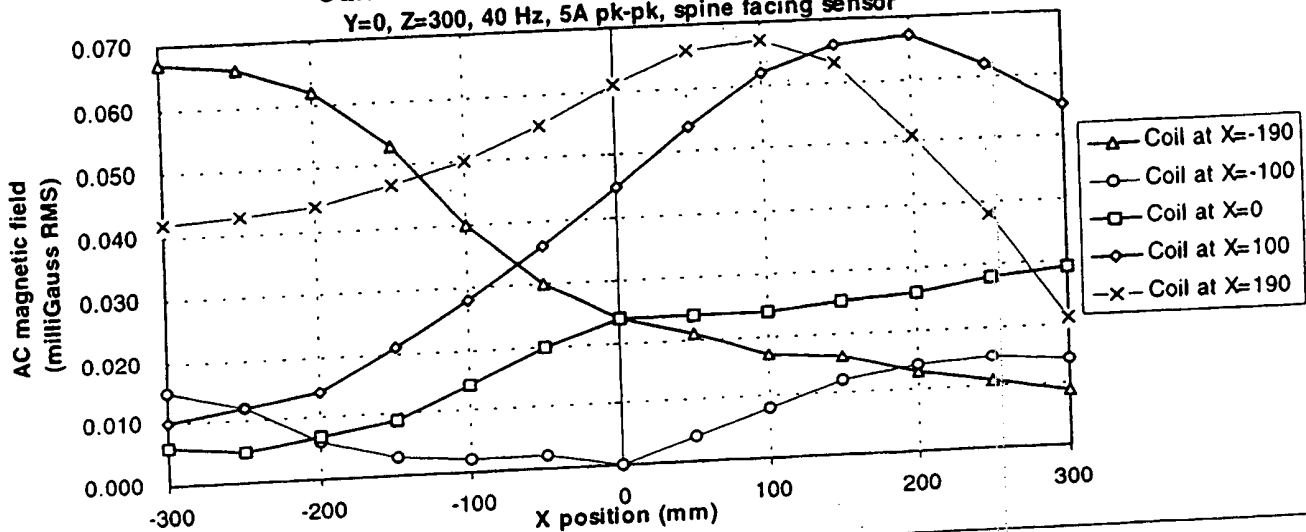
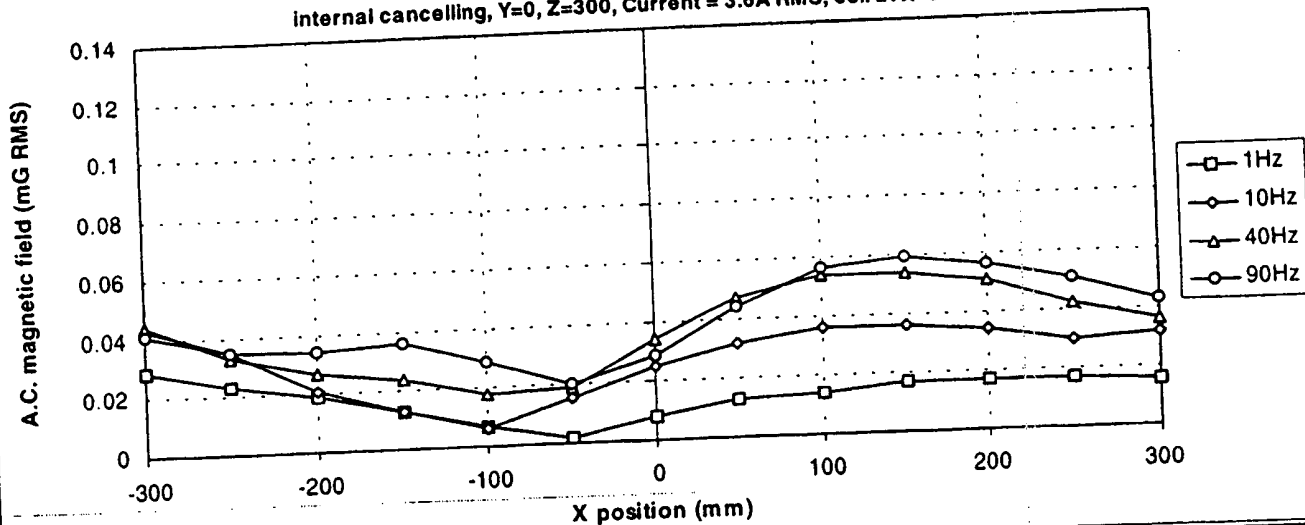
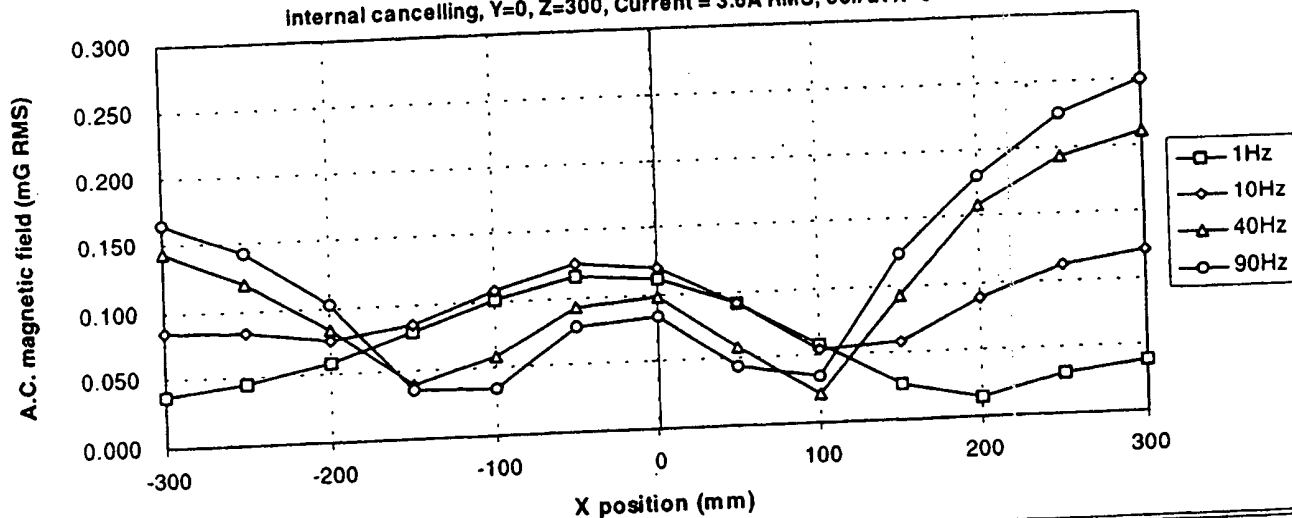


Fig. 9

Cancelled X field variation with frequency
 internal cancelling, $Y=0$, $Z=300$, Current = 3.6A RMS, coil at $X=0$



Cancelled Y field variation with frequency
 internal cancelling, $Y=0$, $Z=300$, Current = 3.6A RMS, coil at $X=0$



Cancelled Z field variation with frequency
 internal cancelling, $Y=0$, $Z=300$, Current = 3.6A RMS, coil at $X=0$

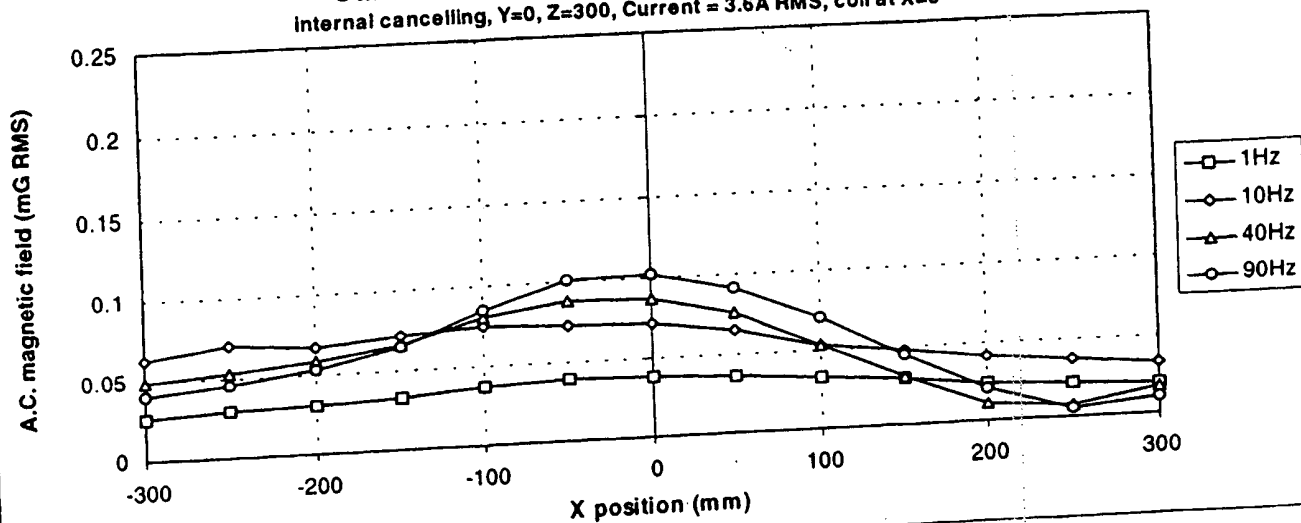
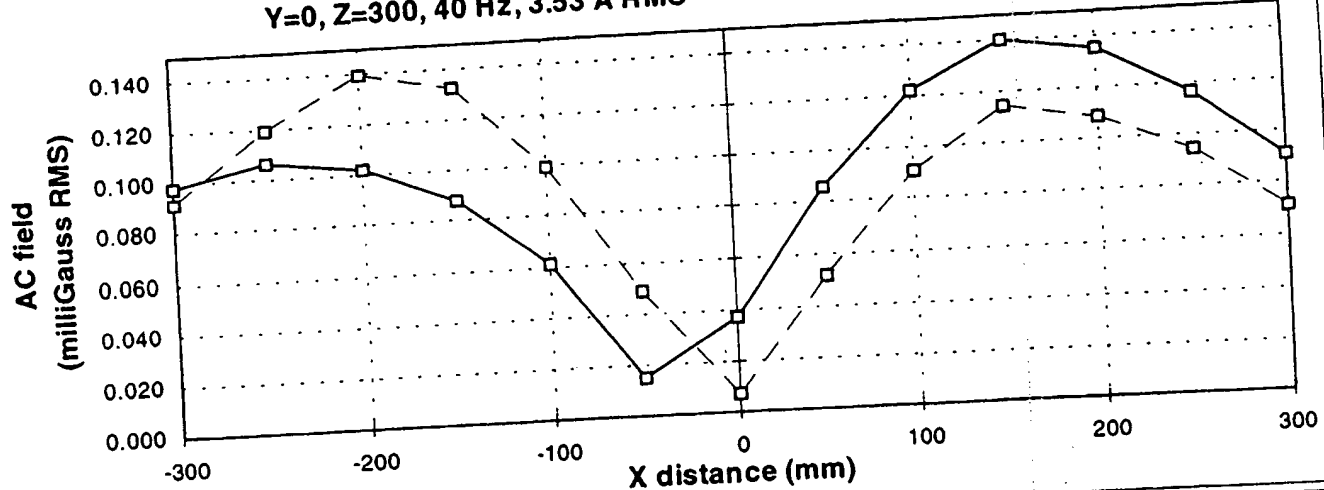
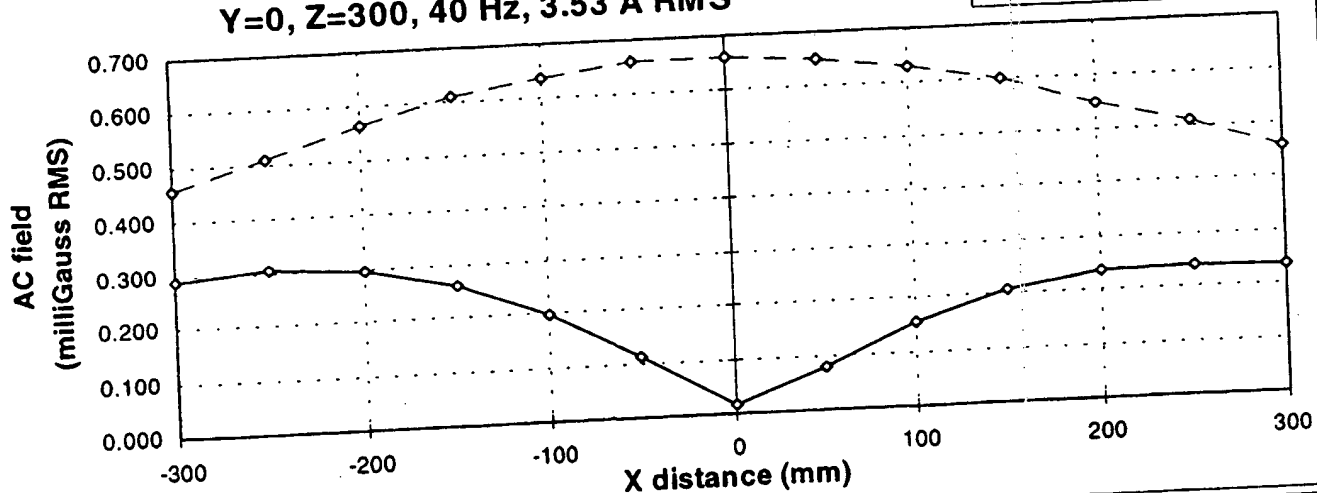


Fig. 10

X fields from test coils centered in motor $Y=0, Z=300, 40 \text{ Hz}, 3.53 \text{ A RMS}$



Y fields from test coils centered in motor $Y=0, Z=300, 40 \text{ Hz}, 3.53 \text{ A RMS}$



Z fields from test coils centered in motor $Y=0, Z=300, 40 \text{ Hz}, 3.53 \text{ A RMS}$

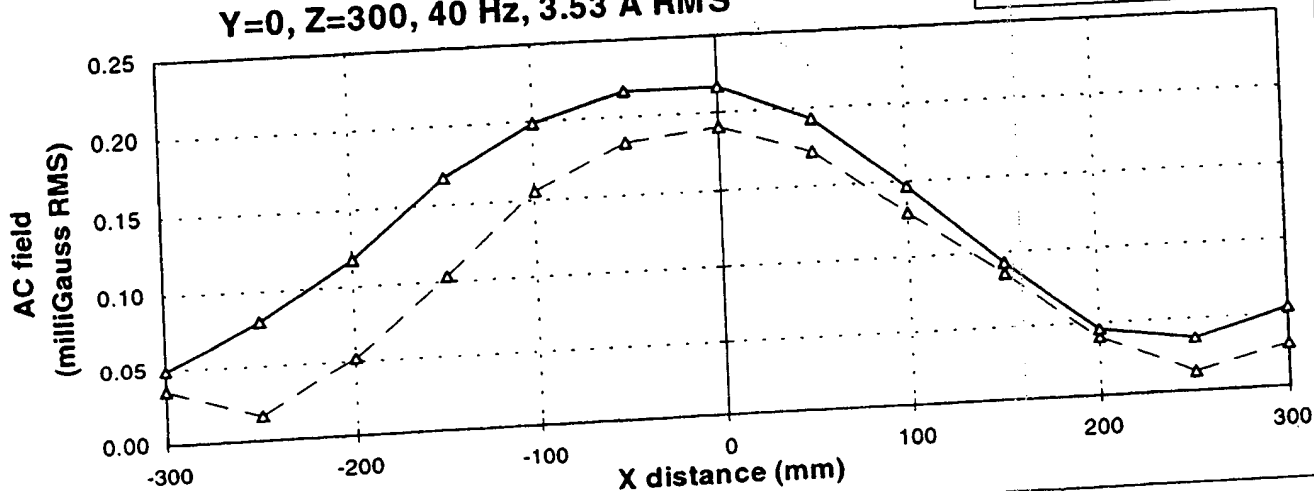


Fig. 11

005220-41052960

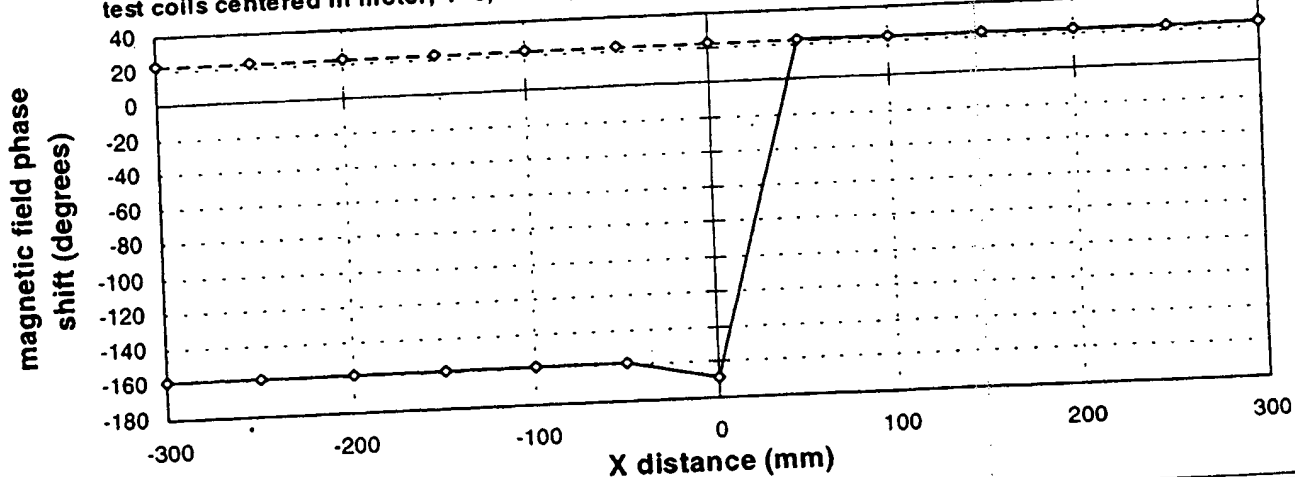
X field phase shift from test coil drive current,

test coils centered in motor, $Y=0$, $Z=300$, 40 Hz, 3.53 A RMS



Y field phase shift from test coil drive current,

test coils centered in motor, $Y=0$, $Z=300$, 40 Hz, 3.53 A RMS



Z field phase shift from test coil drive current,

test coils centered in motor, $Y=0$, $Z=300$, 40 Hz, 3.53 A RMS

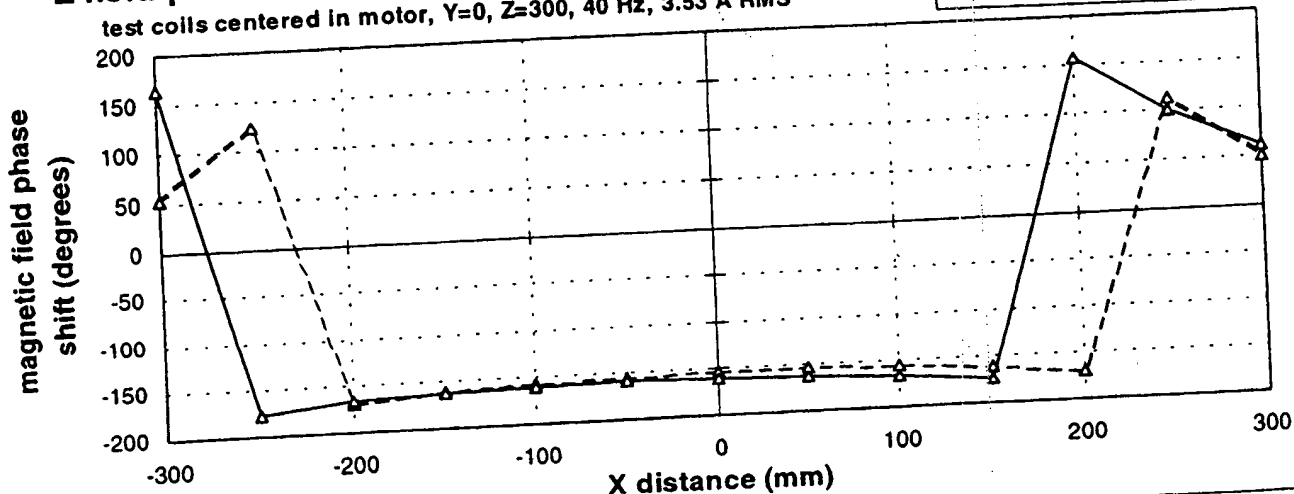


Fig. 12

005220"4T052960

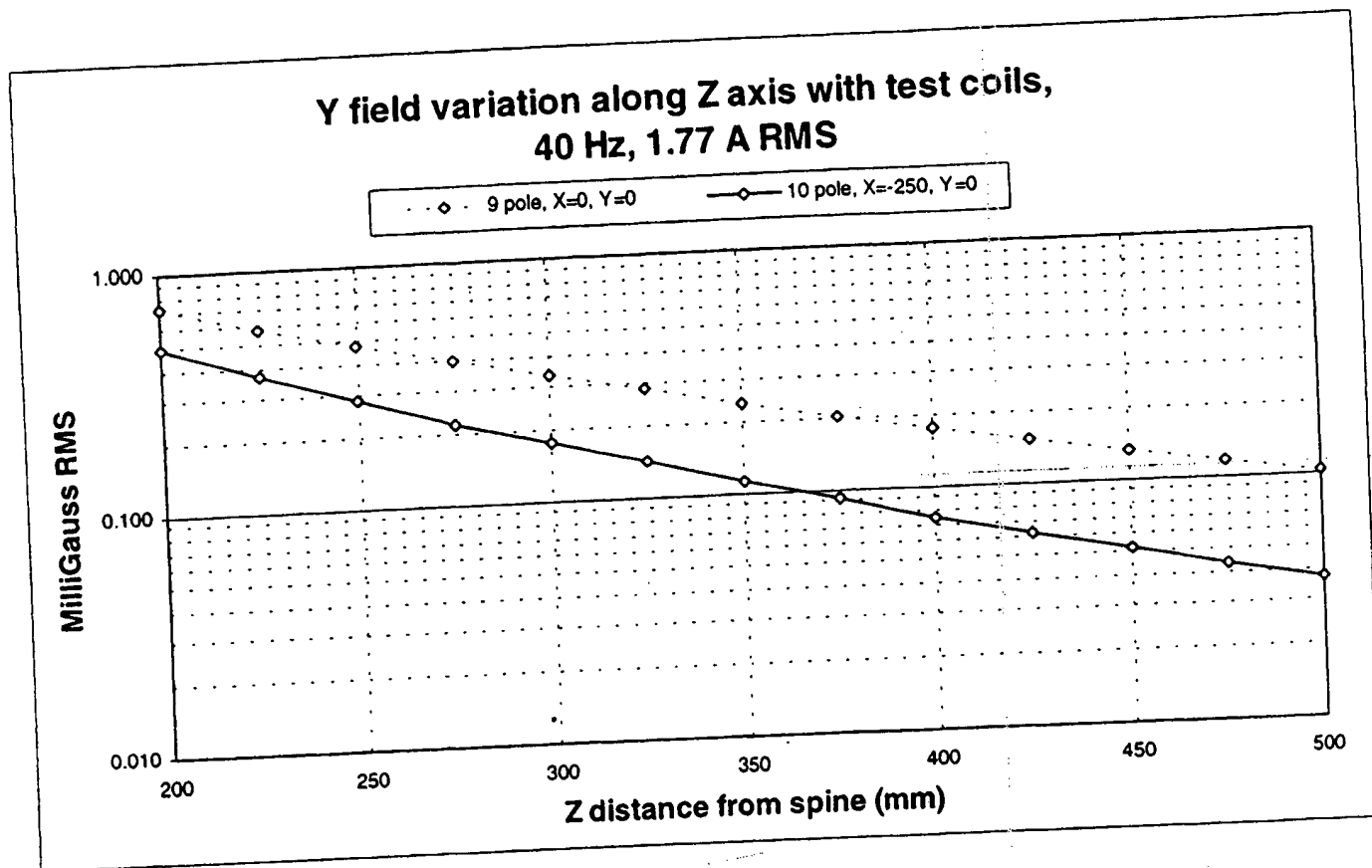


Figure 13

005220*47052960

Comparison of theory and data for 9 pole coil and correction

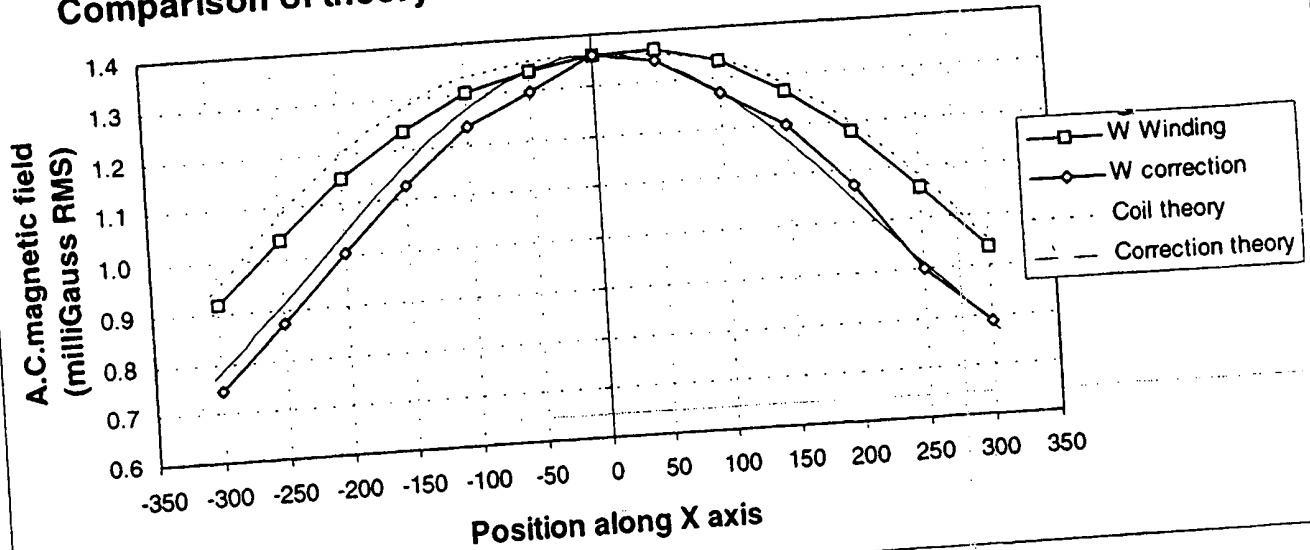


Figure 14

Theoretical comparison of 9 and 10 pole coil and correction

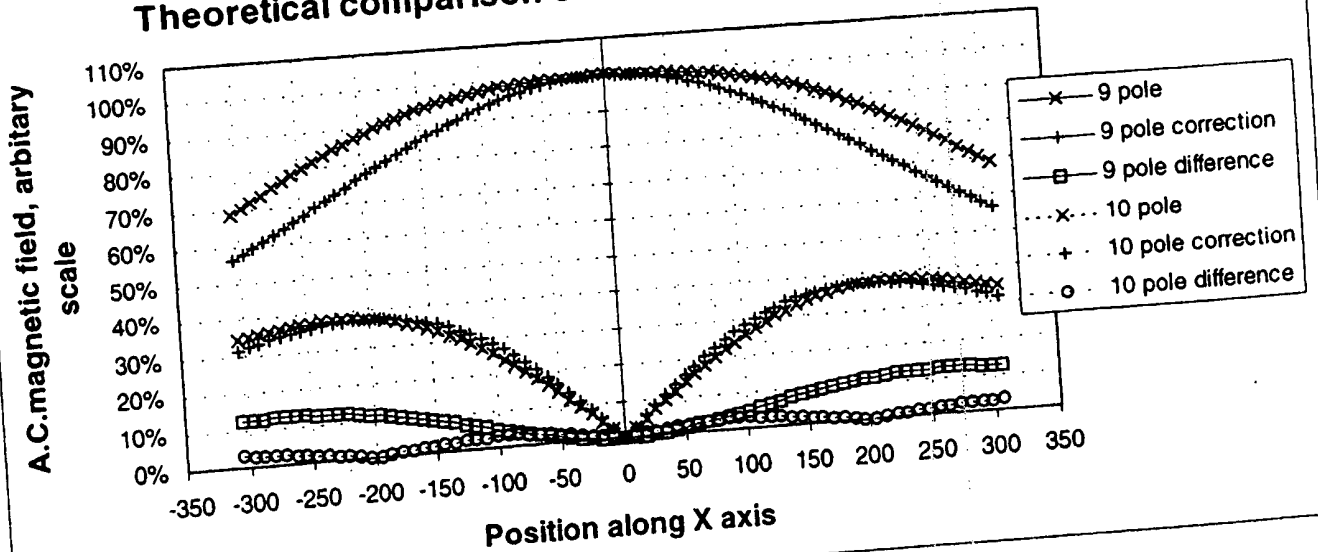


Figure 15

005220-4T052960

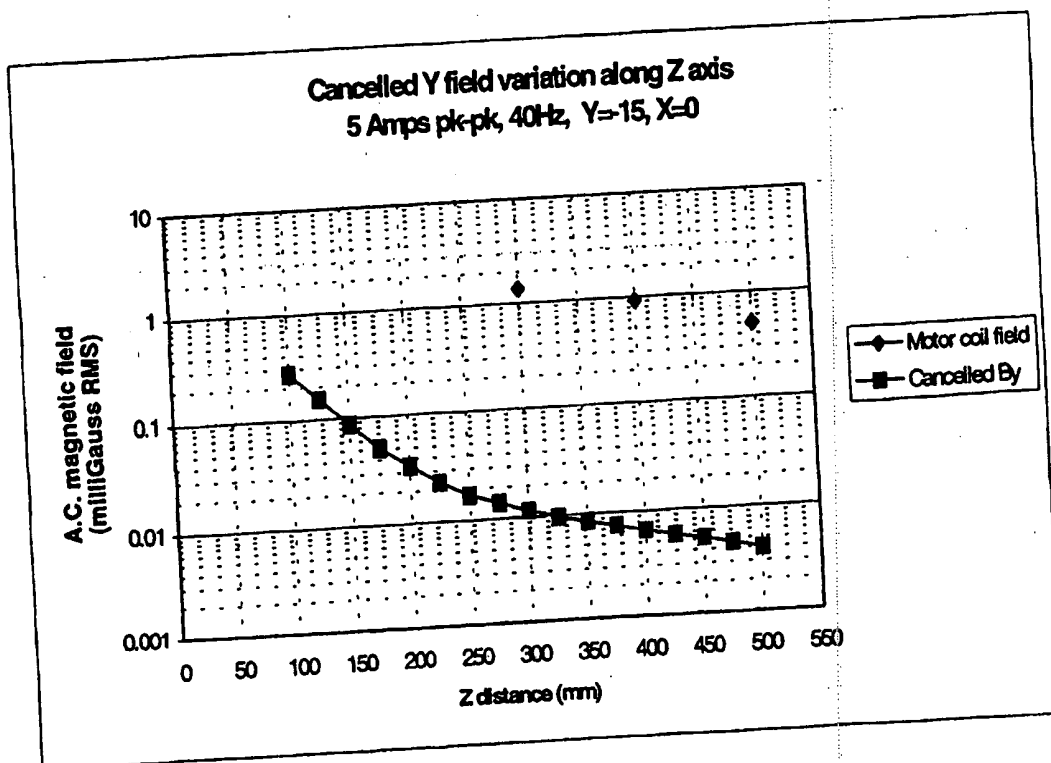
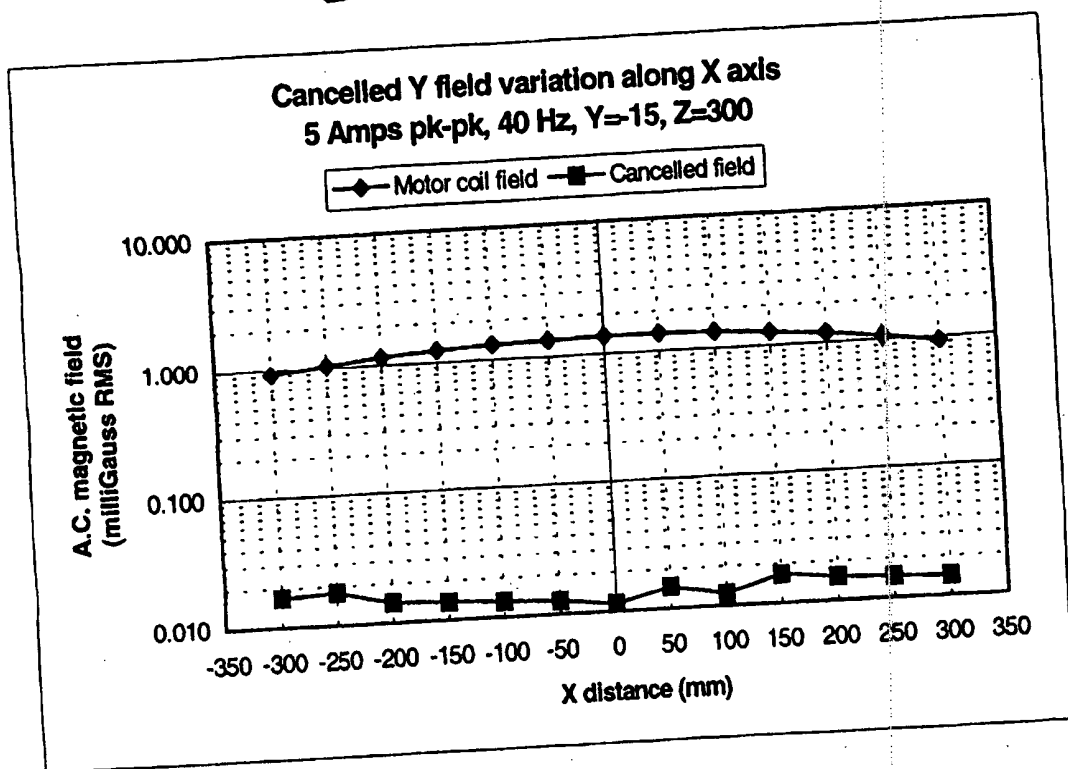


Figure 16

005270-4T052960

